

DISCOVERY MINES

ANNUAL

OPERATING SUMMARY

	1966	1965
Tons Milled	82,848	80,540
Average Tons Milled Daily	227	221
Grade Ounces per Ton Milled	0.74	0.71
Ounces Gold Produced	60,137	55,865
Revenue	\$2,321,273	\$2,183,617
Operating Profit	\$ 793,349	\$ 676,051
Net Profit	\$ 534,962	\$ 82,130

FINANCIAL SUMMARY 1950-1966

Ounces Gold Produced (from 846,942 tons milled)	938,388	
Bullion Production	\$33,182,374	
Net Profit	\$ 7,955,180	
Dividends Paid	\$ 5,550,077	

THE ANNUAL MEETING of the Shareholders will be held on Wednesday, April 19, 1967, at 11:00 o'clock in the forenoon, E.S.T., in the New Brunswick Room, Royal York Hotel, Toronto, Canada.



Photo by Gerry Reimann Yellowknife, N.W.T.

YELLOWKNIFE, CAPITAL OF THE NORTHWEST TERRITORIES

An aerial view of the town of Yellowknife looking to the east towards Yellowknife Bay. In 1966 Yellowknife became the Capital of the Territories.

The first permanent settlement was established in 1937 following the discovery of gold in the area. The town has grown steadily and has a present population of about 3,900. Yellow-knife boasts every modern facility and is in sharp contrast to the original settlement which may be seen in the top of the photograph. The main road extending the length of the photograph leads to Yellowknife International Airport and connects with the MacKenzie Highway.

Yellowknife is the gold metropolis of the far north and is the centre for transportation and other services for Discovery and the other three producing mines in the area.

OFFICERS & DIRECTORS

OFFICERS	J. J. BYRNE Chairman of the Board
	J. C. BYRNE President
	D. S. HAMILTON Secretary-Treasurer
DIRECTORS	J. J. BYRNE Toronto, Ont.
	J. C. BYRNE Toronto, Ont.
	W. M. CONNOR Ottawa, Ont.
	E. S. HOLMGREN Detroit, Mich.
	D. O. MUNGOVAN, Q.C Toronto, Ont.
MANAGEMENT	J. C. BYRNE Toronto, Ont.
	Managing Director
	R. J. KILGOUR, P.Eng Discovery, N.W.T. General Manager
CONSULTANTS	NORMAN W. BYRNE, P.Eng Yellowknife, N.W.T.
00110021711110	Consulting Engineer
	A. P. BEAVAN, Ph.D., P.Eng Montreal, Que. Consulting Geologist
	Consuming Octologisi
SOLICITORS	MUNGOVAN & MUNGOVAN - 80 King St. W., Toronto, Ont.
AUDITORS	EDDIS & ASSOCIATES 85 Richmond St. W., Toronto, Ont.
	Chartered Accountants
TRANSFER AGENTS	CROWN TRUST COMPANY 302 Bay St., Toronto, Ont.
AND REGISTRARS	BANKERS TRUST COMPANY New York, N.Y.
BANKERS	ROYAL BANK OF CANADA Toronto, Ont.
	Bay & Temperance Branch
191	CANADIAN IMPERIAL BANK OF COMMERCE Yellowknife, N.W.T.

DIRECTORS' REPORT

Your Directors are pleased to present the 20th Annual Report for the year ending December 31, 1966. There was a very substantial increase in net profit for 1966 at \$543,962 or 19.6 cents per share. Increases were again recorded in tons milled and in grade of ore milled which accounted to a large extent for a reduction in mine operating costs of 56 cents per ton milled and \$1.92 per ounce of gold recovered. Escalating costs, an expanded program of underground exploration in the search for new ore and a lower grade of ore milled in 1967 will mean an increase in operating costs of approximately 75 cents per ton milled and \$8.00 per ounce produced. Cost Aid under the Federal Government's Emergency Gold Mining Assistance Act will apply in 1967 although none was received in 1966.

New ore developed during the year amounted to less than half the tons milled and the average grade was below the previous year's reserve figure. Proven ore reserves were therefore reduced to 143,000 tons averaging 0.66 ounces per ton which is approximately two years' milling requirements.

Shortage of skilled labour in 1966 became a very serious problem to the mining industry and particularly gold mining. Our General Manager, Mr. R. J. Kilgour, and his department heads are to be warmly congratulated for their successful efforts in recruiting and maintaining a full work force. About seventy-five per cent of our underground crew are foreign born. Schools in basic English, in mining skills and in safety were operated at the minesite.

The market value of our listed securities was \$2,292,800 at year end, an excess of \$491,000 over the book value. This is the result of a price increase in the shares of Rayrock Mines Limited in which your Company holds effective control. Rayrock has substantial interests in oil, copper and gold production and is active in exploration across Canada.

Please refer to pages 16 and 17 for a resume of Discovery's holdings in associated and subsidiary companies.

Recent developments on the international monetary scene indicate that the gold price question is slowly entering a final phase of resolution. On January 30th the French Government announced removal of all restrictions on the purchase and sale of gold and the movement of currencies. By these two acts a free gold market was established.

World wide hoarding of gold has been increasing steadily over the past ten years and it is most significant that for the first time in modern history an amount equal to all of the world's estimated output of gold in 1966 has gone into private hands. During the same period the United States, the wealthiest nation in history, has steadily increased its debt to the rest of the world in terms of gold and short term funds to a figure of 30 billion dollars. A higher price for gold would reduce the incentive to hoard and result in channeling of greater quantities of newly mined gold into monetary holdings.

Interim Dividend No. 24 will be paid to shareholders in December of this year.

It is a pleasure to record our sincere thanks and appreciation to the General Manager, his staff and crew, for the very efficient and conscientious operation of the Mine during the past year.

On behalf of the Board of Directors

J. J. BYRNE Chairman of the Board J. C. BYRNE
President and Managing Director

Toronto, Ontario March 7, 1967

BALANCE SHEET AS AT DECEMBER 31, 1966

ASSETS

Current Cash Cash Bullion on hand and in transit Receivable under the Emergency Gold Mining Assistance Act estimated Accounts receivable Shares in Other Mining Companies, at cost Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) Other Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost Advances Advances Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures Other	
Bullion on hand and in transit Receivable under the Emergency Gold Mining Assistance Act — estimated Accounts receivable Shares in Other Mining Companies, at cost Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) Other Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) Other Camlaren Mines Limited Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost Advances Income debentures of Tundra Gold Mines Limited, due April 1, 1970 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 113,817 29,385 419,161 Shares in Other Mining Companies, at cost 1,801,595 941,410 2,743,005 1,801,595 941,410 2,743,005 1,801,595 941,410 2,743,005 252,058 13,158 265,216 Other Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 440,000 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 1,101,755	1965
Receivable under the Emergency Gold Mining Assistance Act estimated 13,817 Accounts receivable 29,385 Accounts receivable 29,385 419,161 Shares in Other Mining Companies, at cost Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) 1,801,595 Other 941,410 2,743,005 Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost 252,058 Advances 13,158 Cother Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 440,000 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 1,101,755	30,981
estimated	180,903
Accounts receivable 29,385 419,161 Shares in Other Mining Companies, at cost Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) 1,801,595 Other 941,410 2,743,005 Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost 252,058 Advances 13,158 Cother Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 440,000 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 1,101,755	31,446
Shares in Other Mining Companies, at cost Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) Other 2,743,005 Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost Advances 252,058 13,158 265,216 Other Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 1,801,595 941,410 2,743,005	29,364
Listed (Quoted market value 1966 — \$2,292,800, 1965 — \$2,224,600) Other 1,801,595	272,694
Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost Advances Other Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company	
Investment in and Advances to Subsidiary Company, Camlaren Mines Limited Investment in shares, at cost Advances 252,058 13,158 265,216 Other Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 1,101,755	1,816,220 941,411
Camlaren Mines Limited Investment in shares, at cost	2,757,631
Investment in shares, at cost	
Advances 13,158 265,216 Other Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company	252,058
Other Investments Income debentures of Tundra Gold Mines Limited, due April 1, 1970 440,000 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 451,364	13,190
Income debentures of Tundra Gold Mines Limited, due April 1, 1970 440,000 Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 451,364	265,248
Mining Properties Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 451,364	
Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 451,364	440,000
Mining claims — acquired for cash and shares of capital stock at valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 451,364	
valuation placed thereon by the directors of the company 272,932 Land, buildings, plant and equipment, at cost less accumulated depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures 451,364	
depreciation to date 1966 — \$2,395,141, 1965 — \$2,330,375 Deferred exploration and development expenditures	272,932
1,101,755	1,037,165
	597,178
Other	1,907,275
- The state of the	
Mine stores, at cost	047 77
Mine stores, at cost	247,775 7,954
Incorporation expense 4,837	4,837
226,747	260,566
\$5,195,884	5,903,414



LIABILITIES

Current	1966	1965
Bank loan and overdraft		300,540
Accounts payable and accrued charges	143,537	174,935
Estimated N.W.T. royalty tax payable	21,000	20,000
	164,537	495,475
Capital and Surplus		
Capital Stock		
Authorized:		
4,000,000 shares of \$1.00 par value each \$4,000,000		
Issued and fully paid		
2,734,773 shares	2,734,773	2,734,773
Contributed surplus	189,324	189,324
Earned surplus	2,107,250	2,483,842
	5,031,347	5,407,939

Approved on behalf of the Board,

J. J. BYRNE, Director.

J. C. BYRNE, Director.

\$5,195,884

\$5,903,414

The accompanying Notes are an integral part of these financial Statements and should be read in conjunction therewith.

NOTES TO FINANCIAL STATEMENTS AS AT DECEMBER 31, 1966

1. Subsidiary Company

The company holds 70% of the outstanding share capital of Camlaren Mines Limited.

By agreements dated November 30, 1964 and October 15, 1965 the company agreed to carry out, by December 31, 1968, a programme of exploration and development upon the 21 mining claims held by Camlaren Mines Limited in the Gordon Lake Area, N.W.T. at a total cost of \$317,000. In consideration of the company carrying out the said programme, Camlaren Mines Limited agreed to assign to the company a 66%% undivided interest in the said mining claims.

The accounts of the subsidiary company have not been consolidated in these financial statements. During the period covered by the financial statements Camlaren Mines Limited was inactive except for maintenance expenses at its property in the Gordon Lake Area, N.W.T.

2. Income Debentures of Tundra Gold Mines Limited

The income debentures of Tundra Gold Mines Limited have been subordinated to the bank to assist in the financing of that company. As at the date of these financial statements, Tundra Gold Mines Limited was not indebted to its bankers.

3. Fixed Assets — LaForma Property, Yukon Territory

Included under land, buildings, plant and equipment are buildings and equipment at the LaForma property at a cost of \$697,345 less provision for estimated loss on disposal of \$500,000.

4. Deferred Exploration and Development Expenditures

Deferred exploration and development expenditures of \$451,364 consist of expenditures by a predecessor company upon mining claims in the Mattagami Lake Area of Quebec and other locations.

It is the policy of the company to carry these expenditures forward until such time as they can be written off against revenue from these properties.

STATEMENT OF OPERATIONS

For the year ended December 31, 1966

	1966	1965
Metal production	2,276,213 45,060	2,115,617
Estimated amount recoverable under the Emergency Gold Mining Assistance Act		68,000
	2,321,273	2,183,617
Expenditure		
Cost of metal production, including mining, milling, delivery and mint charges Exploration and development Head office, administrative and general expenses Bank interest Directors' fees	1,298,187 153,586 61,174 10,477 4,500	1,246,194 199,955 49,214 7,703 4,500
	1,527,924	1,507,566
Profit before depreciation	793,349	676,051
Deduct:		
Depreciation on buildings, plant and equipment	64,766	73,747
Operating profit	728,583	602,304
Deduct:		
Exploration, development and mining at LaForma, Yukon Territory, less revenue from production Outside exploration	147,633 24,988	478,145 22,029
	172,621	500,174
Net profit before income taxes	555,962	102,130
Less:		
Estimated Northwest Territories royalty tax	21,000	20,000
Net profit for the year	\$ 534,962	\$ 82,130



STATEMENT OF EARNED SURPLUS

For the year ended December 31, 1966

	1966	1965
Balance at beginning of year	2,483,842	2,591,879
Add:		
Net profit for the year	534,962	82,130
	3,018,804	2,674,009
Deduct:		
Dividend paidLoss on disposal of fixed assets at LaForma property, including provision for	191,434	164,086
losses on equipment not yet disposed of	574,306	
Deferred exploration and development expenditures on LaForma property	145,814	
Adjustment of Emergency Gold Mining Assistance of prior yeàrs	,	15,466 10,615
	911,554	190,167
Balance at end of year	\$2,107,250	\$2,483,842

AUDITORS' REPORT

To the Shareholders, Discovery Mines Limited.

We have examined the balance sheet of Discovery Mines Limited as at December 31, 1966 and the statements of earned surplus and operations for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the attached balance sheet and accompanying statements of earned surplus and operations present fairly the financial position of the company as at December 31, 1966 and the results of its operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Our examination also included the accompanying statement of source and application of funds which, in our opinion, presents fairly the sources and applications of funds of the company for the year ended December 31, 1966.

Toronto, Canada, March 1, 1967. EDDIS & ASSOCIATES,
Chartered Accountants.

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

For the year ended December 31, 1966

	1966	1965
Source of Funds		
Net profit for the year	534,962	82,130
Depreciation	64,766	73,747
Sales of investments	14,626	186,849
Sales of LaForma fixed assets	90,419	
Sale of land at Yellowknife, N.W.T.	2,500	
Sale of capital stock		16,800
Reduction in mine stores	35,179	
Reduction in sundry deposits		3,172
	742,452	362,698
Application of Funds		
Dividends paid	191,434	164,086
Additions to fixed assets	72,285	682,193
Purchase of shares of subsidiary company		23,749
Advances to subsidiary company		5,704
Increase in mine stores		19,309
Increase in sundry deposits	1,328	
Additional income taxes paid on reassessment of prior years' income		10,614
Reduction of company's claim for Emergency Gold Mining Assistance for prior years		15,465
	265,047	921,120
Increase or decrease () in working capital	\$ 477,405	\$ (558,422)

WORKING CAPITAL

Working capital at beginning of year	(222,781)	335,641
Increase or decrease ()	477,405	(558,422)
Working capital at end of year	\$ 254,624	\$ (222,781)

PRODUCTION RECORD FOR THE YEARS 1950 TO 1966

		Average	Grade	Total	
	Tons Milled	Tons Per Day	Ounces Per Ton	Ounces Produced	Value
1950	29,995	82	.63	18,031	\$ 685,680
1951	31,915	87	.68	20,948	772,191
1952	33,282	91	1.12	36,292	1,245,163
1953	33,121	91	1.15	36,918	1,274,008
1954	37,389	102	1.54	56,370	1,922,849
1955	38,693	106	1.76	66,742	2,312,347
1956	42,000	115	1.71	70,688	2,432,972
1957	51,273	140	1.60	81,213	2,736,907
1958	47,621	130	1.78	84,051	2,863,025
1959	51,708	142	1.64	83,988	2,844,374
1960	51,776	142	1.60	81,967	2,835,701
1961	55,163	151	1.18	64,484	2,304,929
1962	53,858	148	.81	43,011	1,617,543
*1963	47,924	168	.64	30,209	1,143,999
1964	77,830	213	.62	47,471	1,798,856
1965	80,546	221	.71	55,865	2,115,617
1966	82,848	227	.74	60,137	2,276,213
TOTAL	846,942	138	1.13	938,388	\$33,182,374

^{*} In addition to the above, Discovery milled during 1963 12,174 tons of Camlaren Mines Limited ore grading 1.14 ounces per ton.

OPERATIONS REPORT

1966 was a most successful year for your Discovery Mine — tons of ore milled during the year reached a record high — grade of ore increased from the previous year — and unit operating costs were reduced significantly.

Exploration and development work underground continued throughout the year. In his year end report Norman W. Byrne, Consulting Engineer, describes the development work, adds his recommendations and reports on ore reserves thus—

"Development of the 4 Vein system and the 16 Vein was completed to the bottom 3,950 foot level in the mine during 1966. Crosscuts were put out at the deepest horizon for drill exploration below 4,000 feet and drilling was just underway at year end. The target is small in comparison to the ore areas developed in these veins on levels above. Search has continued throughout the mine at all levels for additional tonnage and some small, but interesting, plums have contributed to the total mine production. Routine testing of all favourable structures in the

1-4-16 Veins productive area in a retreating sequence is now underway. Substantial tonnages of good grade ore must be indicated below the bottom mine level at 4,000 feet before serious consideration can be given to deepening the shaft or collaring a winze.

"Some 14,600 feet of exploration drilling completed during the year has failed to indicate any new substantial ore bodies, however several potential areas remain to be tested in the broad search schedule adopted by mine management. The favourable competent greywacke bed, host rock of most production in the past several years, is being reassessed at shallow horizons. Some wide areas of intense fracturing in greywacke lying southwest of the present workings at the Twenty-fourth level have produced a series of gold-bearing quartz intersections which will be a prime target for development in 1967. The 16 Vein structure will be tested at two or three more levels above present stoped areas in the 16 and 18 Level block. The Third Level, source of ore in the volcanics, is again under consideration and will produce some medium grade mill feed.

OPERATIONS REPORT (continued)

"Proven ore reserves in the mine at year end may be summarized as follows:

,	Tons		Grade	
	1966	1965	1966	1965
Broken in Stopes	56,000	60,523	0.64	0.83
In Place	86,994	130,017	0.67	0.81
Total	142,994	190,540	0.66	0.82"

Mr. R. J. Kilgour, General Manager, in his year end report, records the milling of 82,845 tons of ore with the recovery of 60,145 ounces of gold valued at \$2,276,213.

Operating costs have been reduced in terms of cost per ton milled and also per ounce of gold produced. This reduction in costs coupled with increased gold production resulted in an increase in operating profit from \$676,051 in 1965 to \$793,349 in 1966. The reduction in unit costs was achieved in the face of increased labour and material costs.

During the year ore was broken in stopes between the 2150 foot and 3950 foot levels. 55 per cent of the ore hoisted came from the No. 4B Vein, 30 per cent from the No. 16, 9 per cent from the West Zone and 2 per cent from the No. 3 Vein.

Mill performance figures are shown in an accompanying table. Tons milled amounted to 82,848 tons with an average throughput of 227 tons per day, a new record. Mill recovery for the year was 98.31 per cent, and over the 17 years production averaged 98.29 per cent, which, we believe, is a record for gold mines in North America.

Mr. Kilgour advises that during the year an average of 128 men was employed, down slightly from 1965. There was an acute shortage of experienced miners throughout the year. Special efforts were made to combat this shortage and these were especially effective. Newly arrived immigrants were recruited at outside points. These men are usually inexperienced and have little or no knowledge of Department heads train their own English. recruits. For underground work such men are trained in special working places to work safely and effectively. Classes of instruction are held in the evenings to give these men a working knowledge of English. The ladies in the camp are particularly helpful in this regard. At Christmas time we had occasion to exchange the season's greetings and it was found that among our employees 19 different languages may be used.

Accident prevention is an important part of operations at Discovery. Men are trained and equipment is provided for fire-fighting both underground and on surface. Other special crews are trained in mine rescue work. Efforts to prevent accidents were particularly successful during 1966 and our record for the year was among the best in Canada for an operation of comparable size.

As in previous years, freight was trucked to the mine from Edmonton and Yellowknife to bring in supplies needed for the year's operation. Some 1,556 tons were trucked over the 65-mile winter road from Yellowknife, mostly in tractor-trailer units carrying 20-ton loads. The property was also serviced by a variety of aircraft landing on Giauque Lake or on the Company airstrip. An average of five aircraft land at the mine each week.

OPERATING COSTS

	1966		1965		
	Per Ton Milled	Per Ounce Recovered	Per Ton Milled	Per Ounce Recovered	
Development	\$ 2.48	\$ 3.42	\$ 3.38	\$ 4.87	
Mining	11.04	15.21	10.65	15.36	
MillingTOTAL COSTS before	3.71	5.11	3.76	5.43	
depreciation & taxes	\$ 17.23	\$ 23.74	\$ 17.79	\$ 25.66	

DEVELOPMENT

	1966	1965	To Date
Shaft Sinking	nil	nil	4,060 ft.
Shaft Stations and Loading			
Pockets	nil	nil	161,181 cu. ft.
Sumps	4,670	nil	36,508 cu. ft.
Raises and ore passes	nil	559	18,379 ft.
Drifts and Crosscuts	2,586	3,290	47,583
Diamond Drilling — Surface	201	nil	25,605
Diamond Drilling — Underground	14,609	21,383	233,982

MILLING

	1966	1965	To Date
Tons Milled	82,848	80,540	846,942
Tons Milled Daily	227.0	220.6	.138.2
Operating Time — Per Cent	98.72	97.99	97.80
Mill Heads — oz. Per Ton	0.74	0.71	1.13
Mill Tails — oz. Per Ton	0.012	0.014	0.019
Mill Recovery — Per Cent	98.31	98.04	98.29
Mill Heads — Value Per Ton	\$27.48	\$26.80	\$39.18
Mill Tails — Value Per Ton	\$ 0.45	\$ 0.53	\$ 0.68
Fine Ounces Gold Produced	60,137	55,864	938,388
Value of Production-Dollars	2,276,213	2,115,952	33,182,374
Price Received for Gold	\$37.71	\$37.73	\$35.23

HOLDINGS IN OTHER COMPANIES

RAYROCK MINES LIMITED

Rayrock Mines, a Company in which Discovery holds effective control, has recently reported important advances and developments in both its mining and petroleum divisions.

While Rayrock continues to carry out aggressive and widespread exploration ventures in several areas of Canada, it is currently involved in the development of a new copper mine and is also adding significant new oil production interests to its southwestern Ontario lease holdings.

Rayrock, as a result of its 25 per cent interest in the Icon Syndicate, will see its income increase substantially after the Icon Syndicate's Chibougamau area copper deposit is put into production this year. Start-up of mining on the open pit development is scheduled for May, with the ore to be trucked to the nearby concentrator of Merrill Island Mining Corporation at a rate of 600 tons daily.

Ore reserves, as of December 31, 1966, were calculated at 756,400 tons with average grade of 3.58 per cent (72 pounds) of copper per ton. There are ore-grade drill intersections beyond the limits of the calculated reserves and these are being followed up by further drilling.

Rayrock's petroleum division continues to grow. The Company recently acquired a 40 per cent interest in the producing R. & R. unit of the Rodney field and a 10 per cent interest in the Gobles field production near Woodstock.

These acquisitions added 600,000 barrels to Rayrock's proven oil reserves which now amount to 2,600,000 barrels. Total oil production from Rayrock's wholly owned wells in the Rodney field since acquisition in January, 1962 is 537,952 barrels with a value of \$1,707,954 to October 31, 1966.

For 1967, Rayrock anticipates a net operating profit or cash flow of \$300,000 from its petroleum division, compared to \$249,122 from this division in the fiscal year ended October 31, 1966.

Market value of Rayrock's listed investments for the fiscal year 1966 (year end October 31, 1966) amounted to \$2,260,600, an increase of \$460,500 over the book value of \$1,800,067. Book value of unlisted investments was \$534,537. Cash and short term notes amounted to \$845,352.

CAMLAREN MINE, Northwest Territories (Subsidiary Company)

A 70 per cent interest is held by your Company in the Camlaren gold property located 28 air miles or 40 winter road miles west and south of the Discovery Mine. In the 1930's a shaft was sunk to a depth of 390 feet and levels established at 200 and 350 feet. The Hump Vein was developed by drifting for an average length of 335 feet on two levels and was diamond drilled to a vertical depth of 565 feet. This work indicated a modest tonnage good grade operation.

In 1962 Discovery mined the best section of the Vein above the 350 foot level and in 1963 trucked by winter road and milled some 13,000 tons of gold ore averaging 1.14 ounces per ton. Grade was considerably higher than the uncut average of 0.86 ounces per ton indicated by previous mine sampling. This work was essentially a bulk test to determine the grade of ore and mining conditions.

The proposed extensive underground exploration program, including shaft sinking to the 850 foot horizon, has been deferred due to the severe shortage of skilled labour and the cost/price squeeze in gold mining. The gravelled highway completed for a distance of 22 miles north east of Yellowknife is scheduled for extension this year to a point 23 miles due south of the Camlaren Mine. (See map)

NORITA QUEBEC MINES LIMITED

In 1965 Radiore Uranium Mines Limited entered into an option agreement with Amagami Mines Limited to acquire 18 claims adjoining what was then the main Radiore-Discovery group of 51 claims. After completion of a successful diamond drilling program, in which Discovery participated to the extent of 20 per cent, the option was exercised and a new company, Norita Quebec Mines Limited, was formed. The 18 Amagami claims, together with an adjoining 14 Radiore-Discovery claims, were transferred to the new Company. The 14 claims contained the "A" ore zone outlined by previous drilling.

In the 1965-66 drill program a copper-zinc ore zone underlying the "A" zone was outlined. This new zone has so far proven to be over 1,000 feet in length and is open to the east. Total reserves so far, indicated by drilling in both zones, is calculated at 800,000 tons averaging 0.64 per cent copper, 7.29 per cent zinc and 0.70 ounces silver per ton. Discovery holds 157,500 shares of Norita Quebec Mines Limited representing 13 per cent of the issued capital.

MATAGAMI LAKE AREA, QUEBEC

Radiore Uranium Mines Limited (80 per cent) and Discovery Mines (20 per cent) are currently engaged in a diamond drill program on their main group of 37 claims located in the Matagami area of Quebec. This program is designed to test a promising area along the west zone where previous drilling at 450 foot intervals encountered widespread copper mineralization over a strike length of 5,000 feet.

TUNDRA GOLD MINES LIMITED

Your Company holds a substantial share interest and Income Debentures of \$440,000 in Tundra Gold Mines Limited which is in its third year of production. The mine, which is at an isolated location in the barren lands, 200 miles south of the Arctic Circle, is experiencing a most difficult year due to a severe shortage of skilled labour, a lower grade of ore milled and the cost-price squeeze common to the gold mining industry.

WHERE PEOPLE LIKE TO MAKE A STAKE

Extracts from an article on Discovery Mine appearing in the November 1966 issue of Atlas Copco Canada Ltd. publication

Fifty miles north of Yellowknife in the Northwest Territories, accessible in summer only by plane, is a gold mine operation which provides evidence that many Canadians like the idea of being able to make a stake. Discovery Mines is a thoroughly isolated, dry camp; in spite of labor shortages which have plagued the entire mining industry, it has met its daily quota of 220 tons without the loss of a round.

Responsible in a large measure for this situation is R. J. Kilgour, general manager of the company. Mr. Kilgour, who draws most of his miners through the vigorous efforts of his personnel officer, and the Alberta Chamber of Mines, has some interesting and effective ideas on personnel employment and relations. He encourages the idea that short-term employees at Yellowknife can make themselves a stake, and he has few inhibitions about hiring people with slight handicaps. New employees must naturally meet basic physical requirements for the job but minor impairments are not obstacles to employment. Thus the age limit is somewhat flexible and the language limit is even more flexible, with a total of 17 different tongues being used on a property which employs about 125 people and houses nearly 250.

Evidence of this approach to the employment situation is the Discovery assay office which in

the summer of 1965 was populated by two chic females, Joan Christie of Bruderheim, Alberta, who was earning funds for her last year at college, and Mrs. Lois Devin whose husband is a Discovery shift boss.

Types of Employees

In some respects, the personnel of Discovery Mines can be classified under three broad groups: the elderly employee who is quite capable of doing his work but realizes the difficulty of finding employment elsewhere; the younger married employee who finds it extremely advantageous and comfortable to go through the heavy cost years of a young family in a place like Discovery; and the short-term employee where turnover is reasonably high but replacements have been adequate. Many of this latter group come to Discovery for the sole purpose of building a bank account and then leave after six to nine months. To this Mr. Kilgour has no objection.

The possibility of a bank account is real enough: Basic wages are modest, but contract work is available to experienced miners who can earn \$700 to \$800 a month or even more. Since spending possibilities are limited, and taxes — except on personal income — are practically non-existent, a good percentage of these earnings can go into the bank.

The general stability of the work force is indicative of a considerable measure of living satisfaction on the mine site as well as factors compensating for the virtual isolation of this community. One of these factors is the absence of any kind of tax except income tax. Education is also available at no cost to everyone in the Territories, although at university level certain conditions must be met by the students.

Resident families obtain non-perishable staple supplies by means of one annual general order called a grubstake. These are purchased yearly from an Edmonton wholesaler and are obtained by the people at the mine site at wholesale prices. Perishable items are obtained weekly from the mine cookery and fresh bread is available daily.

Weather at the mine is not a serious subject of complaint, although it is admitted that winters are long. According to some families, however, winter weather is no more difficult than that further south, and the summers can be much more agreeable. Geographically, this section of the Territories is considered semi-arid, which in the summer produces long, sunshiny days.

DISCOVERY STAFF

Front Row - Sit	ting	7 — L. to R.
MRS. POLZER -	-	Warehouse & P.O.
MRS. DEVIN -	-	Assayer
MRS. BORDEN	-	Stenographer
L. T. VEAR -	-	Mine Supt.
J. W. PLATT -	-	Geologist
Middle Row		
D. P. SPONTON	-	Shops Supt.
H. WERNER -	-	Mill Supt.
E. deG. MARETT	-	Cookery Supt.
J. A. CASWELL	-	Purchasing
R. J. KILGOUR	-	Gen. Mgr.
Back Row		
L. F. G. BORDEN	-	- Asst. Accountant
M. V. TAYLOR	- 1	Warehousing
D. R. CROMBIE		- Chief Engineer
K. A. NENDSA	-	- Surface Foreman
G. ERSTLING -		Mine Captain
Absent		
R. F. STEDMAN	-	Office Mgr.
M. R. GROMERT	-	- Safety, Security & Welfare







GOLD MINING IN CANADA'S FAR NORTH

